

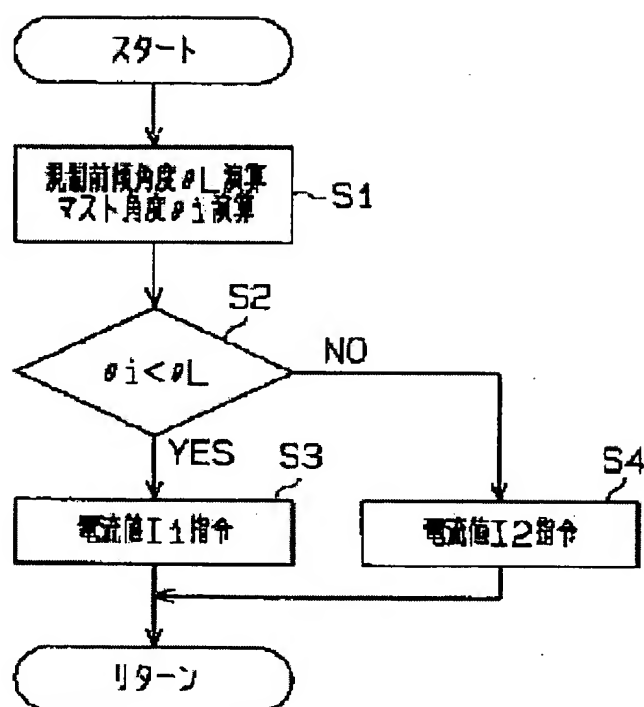
# TILT CYLINDER CONTROLLER FOR INDUSTRIAL VEHICLE

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## Abstract of JP11092095

**PROBLEM TO BE SOLVED:** To easily perform the tilt motion of the forward tilting with high height, by controlling a solenoid valve in such manner that the forward tilting speed is lowered after a mast reaches a regulated forward tilting angle which is operated on the basis of the height and the live load, in the forward tilting motion of the mast.

**SOLUTION:** When an ON signal of a forward tilting detection switch is inputted to CPU, a forward tilting angle control program is executed. First of all, CPU operates a regulated forward tilting angle  $\theta_L$  corresponding to the live load and the height of a fork. Further a mast angle (tilt angle)  $\theta_i$  is also operated (S1). Then whether the mast angle  $\theta_i$  is more than the regulated forward tilting angle  $\theta_L$  or not, is judged (S2). When the mast angle  $\theta_i$  is more than the regulated forward tilting angle  $\theta_L$ , the command current value to a proportional solenoid valve is controlled to be I2 (S3). As the result thereof, a tilt cylinder is driven at a specific speed which is remarkably lower than an ordinary speed, whereby the mast is forwardly tilted at a low speed.



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